Operating Instructions

CES

Wall-mounting socket/ Coupler

> 8575/13
> 8575/14

STAHL

1 Contents

1 Contents 2
2 General Information 2
3 Safety instructions 3
4 Conformity to standards 3
5 Function 4
6 Technical Data 4
7 Mounting 6
8 Installation 6
9 Commissioning 8
10 Repairs and Maintenance 8
11 Accessories and spare parts 9
12 Disposal 9
13 Type examination certificate (Page 1) 10
14 Declaration of conformity 11

2 General Information

2.1 Manufacturer

R. STAHL Schaltgeräte GmbH
Am Bahnhof 30
D-74638 Waldenburg

Telephone: +49 7942 943-0
Fax: +49 7942 943-4333
Internet: www.stahl.de

2.2 Information about the Operating Instructions

ID-NO.: 8575618300
Publication Code: S-BA-8575/13/14-01-en-11/04/2007

We reserve the right to make technical changes without notice.

2.3 Purpose of these instructions

Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations.
Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.
These instructions give a brief summary of the most important safety measures. They supplement the corresponding regulations which the staff responsible must study.

3 Safety instructions

Use the socket or coupler only for its intended purpose.

Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.

No changes to the socket or coupler impairing its explosion protection are permitted.

Operate the socket or coupler only if it is clean and undamaged.

Observe the following when setting up and using the socket or coupler:

- national safety regulations
- national accident prevention regulations
- national installation regulations (e.g. IEC 60079-14)
- generally recognised technical regulations
- safety guidelines in these operating instructions
- characteristic values and rated operating conditions on the rating and data plates
- additional instruction plates on the socket or coupler

Any damage can invalidate the Ex-protection.

Sockets may only be used fully closed with connection area cover in place!

Before opening the socket, disconnect it from the supply!

Wall-mounting socket 8575/13 and coupler 8575/14 can only be energised if a plug is inserted.

Only type 8575/12 plugs from R. STAHL may be used.

When the plug is pulled out, care should be taken to ensure that the hinged socket cover is in mesh with the interlocking latch.

The contact element must be replaced after each short-circuit in the switch main circuit. This is because the element is hermetically sealed and the state of the switching contacts cannot be checked.

4 Conformity to standards

The socket complies with the following standards and regulations:

- Directive 94/9/EC
- EN 50014, EN 50018, EN 50019 (comparable to IEC 60079-0, IEC 60079-1 and IEC 60079-7)
- EN 50281-1-1
- IEC 60947-3 (VDE 0660 T107), IEC 60947-5-1 (VDE 0660 T200)
- IEC 60309, IEC 60529

Type 8575/13 wall-mounting socket and type 8575/14 coupler are certified for use in hazardous areas, zones 1, 2 and zone 22, non-conducting dust.

5 Function

The wall-mounting socket type 8575/13 and the coupler type 8575/14 are explosion-protected electrical devices which connect portable and fixed electrical equipment as well as cables and circuits in hazardous areas.

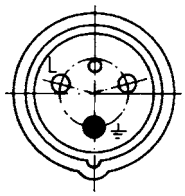
6 Technical Data

Explosion protection		
Gas explosion protection	⟨Ex⟩ II 2 G EEx ed IIC T*	
	* T6: $T_a \leq 45$ °C	
	T5: $T_a \leq 55$ °C	
Dust explosion protection	⟨Ex⟩ II 3 D IP 54 T**	
	** T80 °C: $T_a \leq 45$ °C	
	T95 °C: $T_a \leq 55$ °C	
Certificates		
Gas explosion protection	PTB 01 ATEX 1044	
Dust explosion protection	see certificate	
Ambient temperature	- 20 °C ... + 40 °C - 50 °C ... + 55 °C on request	
Degree of protection	IP 66 IP 55 plug inserted	
Enclosure material	Wall-mounting socket	Polyester
	Coupler	Polyamide
Rated operational voltage U_e	low voltage:	max. 415 V
	extra-low voltage:	max. 50 V
Rated current	16 A	
Switching capacity	AC 3: 415 V 16 A	
	4 kW: 220 V 230 V 240 V	
	7,5 kW: 380 V 400 V 415 V	
Back-up fuse with therm. protection	16 A gL	
Rated isolation voltage	low voltage:	550 V
	extra-low voltage:	60 V
DC switching capacity	DC21: 110 V, 16 A	
Connection cross-section	max. 4 mm^2	
Terminal tightening torque	max. 2 Nm	
Cable entry	**Socket 8575/13:**	
	min. 7 mm / max. 17 mm	
	(Standard, fitted to underside 1 × M25 compression gland)	
	Coupler 8575/14:	
	min. 11 mm / max. 21 mm	

Arrangement of contact sleeves and terminal references:

View from front of socket collar towards contact sleeves:

No. of poles 2P + ⏚



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Example illustrated shows 6 o'clock position.

Identification colour and position of earth contact sleeve relative to key slot for different voltages and frequencies to IEC 60309-2:

No. of poles	Frequency [Hz]	Rated operating voltage [V]	Identification colour	Earth contact sleeve position
8575/..-3.. 2P + ⏚	50 - 60	100 - 130	yellow	4 o'clock
	50 - 60	200 - 250	blue	6 o'clock
	60	277	grey	5 o'clock
	50 - 60	380 - 415	red	9 o'clock
		480 - 500	black	7 o'clock
		after isolating transformer	2)	12 o'clock
	100 - 300	> 50	green	10 o'clock 1)
	> 300 - 500	> 50	green	2 o'clock
	DC	> 50 - 250	light grey 3)	3 o'clock
		> 250	light grey 3)	8 o'clock

1) not standardised, but recommended preferred position

2) Identification colour in accordance with voltage identification colour

3) not standardised

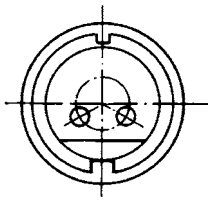
Arrangement of contact sleeves and terminal references for extra-low voltage:

View from the front of socket collar towards contact sleeves

No. of poles 2P 3P

Secondary key

Primary key (always at 6 o'clock)



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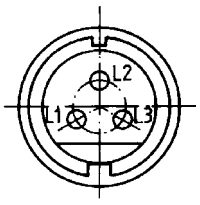

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Identification colour and position of secondary key relative to primary key for different voltages and frequencies to IEC 60309-2:

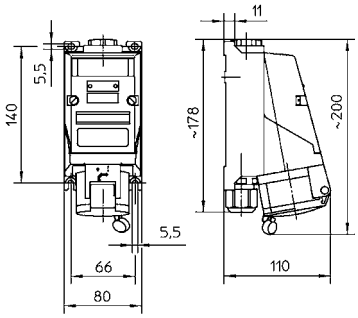
Rated operating voltage [V]	Frequency [Hz]	Secondary key position		Identification colour
		2-pole	3-pole	
20 - 25	50 - 60	without secondary key	without secondary key	violet
40 - 50	50 - 60	12 o'clock	12 o'clock	light grey
20 - 25 und 40 - 50	100 - 200	4 o'clock	4 o'clock	green
	300	2 o'clock	2 o'clock	
	400	3 o'clock	3 o'clock	
	> 400 - 500	11 o'clock	11 o'clock	
20 - 25	DC	10 o'clock	--	violet
40 - 50	DC	10 o'clock	--	light grey

☞	The extra-low voltage plugs and sockets have no earth contact. To ensure correct insertion, a primary key is provided on the socket collar. A secondary key on the socket collar is located at different clock positions to define the voltage and frequency of the particular plug and socket assembly.

⚠ WARNING
Please consult the manufacturer if operating conditions are non-standard.

7 Mounting

Dimension drawings (all dimensions in mm) - subject to alterations



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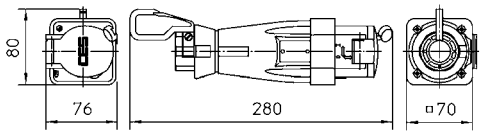

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8575/13

Wall-mounting socket type 8575/13 mounting position:
Flap cover facing downwards, connection area at the top

8575/14

Coupler type 8575/14 position for use:
Suspended by clip ring

The type 8575/13 wall-mounting socket must be fixed vertically with four screws on a flat wall. (For fixing dimensions, see sketch above or back of socket itself.)

The fixing holes are elongated. This permits vertical and horizontal adjustment during mounting.

When a wall-mounting socket 8575/13 or coupler 8575/14 is installed in the open, it is advisable to provide a protective cover or wall.

☞	If no clean and dry surface is available on which to position the coupler, then a suitable attachment point for the clip ring must be found.

Transport and storage are permitted only in the original packaging.

8 Installation

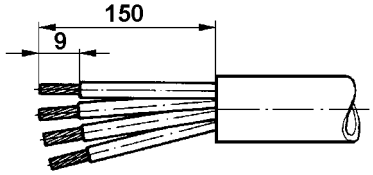
Mains connection:

- The conductors must be carefully connected.
- The conductor insulation must reach to the terminal. The conductor itself must not be damaged (nicked) when removing the insulation.
- Ensure that the maximum permissible conductor temperatures are not exceeded by suitable selection of cables and means of running them.

Please also refer to the terminal details under Technical Data.

Connections for wall-mounting socket 8575/13:

- ▶ Open connection area cover.
- ▶ Push cable through cable gland and into connection area.
- ▶ Remove insulation from cable (max. 4 mm^2) ends.



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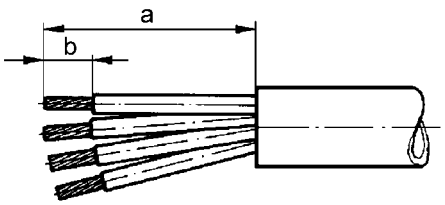
- ▶ Fit stripped cable ends to appropriate terminal slots in socket flange and tighten clamp. When tightening clamp, ensure stripped ends of cable are fully underneath the clamps.
- ▶ Adjust cable so that terminals are not under tension. Fully tighten cable gland screw cap. Carefully replace connection area cover and tighten all screws.

Connections for coupler 8575/14:

- ▶ Loosen four enclosure screws and remove socket flange. Loosen pressure screw clamp and remove pressure screw. Remove pressure ring and gasket from cable gland.
- ▶ Push the cable through pressure screw, pressure ring and gasket. If necessary, increase gasket internal diameter by trimming it to match the cable. Push cable into enclosure through cable gland.
- ▶ Remove insulation from cable (max. 4 mm^2) ends.



a = 60 mm
b = 9 mm

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- ▶ Fit stripped cable ends to appropriate terminal slots in socket flange and tighten clamp. When tightening clamp, ensure stripped ends of cable are fully underneath the clamp.
- ▶ Adjust cable so that terminals are not under tension. Fix cable in tension reliever. Carefully reassemble enclosure and replace screws. Press gasket and pressure ring into cable gland and fully tighten pressure screw. Align pressure screw and fix terminal clamp.

☞	When terminal sleeves are fitted, they must be gas-tight and applied with a suitable tool.

Earth connection:

An earth connection must be made in all circumstances. Plugs and sockets for extra-low voltages have no earth contact.

9 Commissioning

Before commissioning, ensure that

- the socket or coupler has been installed according to the directions
- the socket or coupler is not damaged
- there are no foreign bodies inside the socket or coupler
- the connection area is clean
- connections have been correctly made
- the cable has been brought in correctly
- all screws and nuts are fully tightened
- the cable glands are securely tightened
- unused cable entries are sealed with plugs certified to Directive 94/9/EC and unused holes are sealed with stopping plugs certified to Directive 94/9/EC.

⚠ WARNING
Excessive tightening of the components referred to above can affect the degree of protection.

10 Repairs and Maintenance

Repairs and maintenance work on the sockets and couplers may only be carried out by appropriately authorized and trained personnel.

Before any work commences, the devices must be disconnected from the supply.

⚠ WARNING
Observe the relevant national standards in the country of use! Before opening a socket or coupler, disconnect it from the supply!

The following points must be checked during maintenance:

- clamping screw holding the cable is securely seated
- compliance with permitted temperatures (to EN 50014)
- cracks in plastic enclosures
- damage to the gaskets
- separate sockets and plugs at regular intervals to prevent contact corrosion

☞	Clean the socket or coupler with a damp cloth only.

To avoid corrosion, do not allow cleaning fluids and water to penetrate the socket body.

⚠ WARNING
The contact element must be replaced after each short-circuit in the switch main circuit. This is because the element is hermetically sealed and the state of the switching contacts cannot be checked.

11 Accessories and spare parts

⚠ WARNING
Use only original spare parts as well as original accessories made by R. STAHL Schaltgeräte GmbH.

Designation	Description	Ordering code	Weight kg
Socket flange	for 8575/1.-100, 2-pole	8575069490	0,360
	for 8575/1.-110, 2-pole	8575070490	0,362
	for 8575/1.-112, 2-pole	8575071490	0,364
	for 8575/1.-200, 3-pole	8575067490	0,390
	for 8575/1.-212, 3-pole	8575068490	0,388
	for 8575/1.-302, 3-pole	8575059490	0,382
	for 8575/1.-303, 3-pole	8575060490	0,000
	for 8575/1.-304, 3-pole	8575055490	0,384
	for 8575/1.-306, 3-pole	8575056490	0,384
	for 8575/1.-309, 3-pole	8575058490	0,381
	for 8575/1.-312, 3-pole	8575061490	0,380

☞	Please contact the manufacturer if other clock positions are required for sockets or couplers.

12 Disposal

Observe the national standards for refuse disposal.

☞	We are pleased to answer any special questions you may have. Please contact your nearest R. STAHL representative.

13 Type examination certificate (Page 1)

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) **EC-TYPE-EXAMINATION CERTIFICATE**

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 01 ATEX 1044

(4) Equipment: Plug-and-socket device, type 8575/..-...-.

(5) Manufacturer: R. STAHL Schaltgeräte GmbH

(6) Address: 74638 Waldenburg (Württ.), Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 01-11093.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2 **EN 50018:2000** **EN 50019:2000**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2 G EEx ed IIC T6 or T5

Zertifizierungsstelle Explosionsschutz Braunschweig, July 30, 2002

By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • D-38116 Braunschweig

14 Declaration of conformity

EG-Konformitätserklärung
EC-Declaration Of Conformity
CE-Déclaration De Conformité

PTB 01 ATEX 1044

Wir (we; nous)

R. STAHL Schaltgeräte GmbH, Am Bahnhof 30, D-74638 Waldenburg

erklären in alleiniger Verantwortung, daß das Produkt	**Kleinsteckdose und Kupplung Typen 8575/13 und 8575/14**
hereby declare in our sole responsibility, that the product	Socket and coupler Type 8575/13 and 8575/14
déclarons de notre seule responsabilité, que le produit	Prise de courant et prolongateur Type 8575/13 et 8575/14

auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten übereinstimmt
which is the subject of this declaration, is in conformity with the following standard(s) or normative documents
auquel cette déclaration se rapporte, est conforme aux norme (s) ou aux documents normatifs suivants

Bestimmungen der Richtlinie terms of the directive prescription de la directive	**Titel und/oder Nr. sowie Ausgabedatum der Norm** title and/or No. and date of issue of the standard titre et/ou No. ainsi que date d'émission des normes
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen 94/9/EC: Equipment and protective systems intended for use in potentially explosive atmospheres 94/9/CE: Appareils et systèmes de protection destinés á êtré utilisés en atmosphéres explosibles	EN 50014:1997 +A1 + A2 EN 50018:2000 EN 50019:2000
89/336/EWG: Elektromagnetische Verträglichkeit 89/336/EEC: Electromagnetic compatibility 89/336/CEE: Compatibilité électromagnétique	EN 60947-3:1999 EN 60947-5-1:1999

Waldenburg, 20.11.2001	i.V.	i.V.
Ort und Datum Place and date lieu et date	**Leiter Marketing und Entwicklung** Head of Marketing and Development Directeur Marketing et Développrment	**Leiter Qualitätsmanagement** Head of Quality Management Chef du dept. assurance de qualité

TÜV 03/99 Papier chlorfrei

EG-Konformitätserklärung
EC-Declaration of Conformity
CE-Déclaration de Conformité

Wir *(we; nous)*

R. STAHL Schaltgeräte GmbH, Am Bahnhof 30, D-74638 Waldenburg

8575/13 & 8575/14

erklären in alleiniger Verantwortung, dass das Produkt
hereby declare in our sole responsibility, that the product
déclarons de notre seule responsabilité, que le produit

Kleinsteckdose und Kupplung
Socket and coupler
Prise de courant et prolongateur

auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten übereinstimmt
which is the subject of this declaration, is in conformity with the following standard(s) or normative documents
auquel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants

Bestimmungen der Richtlinie *terms of the directive* *prescription de la directive*	**Titel und/oder Nr. sowie Ausgabedatum der Norm** *title and/or No. and date of issue of the standard* *titre et/ou No. ainsi que date d'émission des normes*
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen *94/9/EC: Equipment and protective systems intended for use in potentially explosive atmospheres* *94/9/CE: Appareils et systèmes de protection destinés à être utilisés en atmosphères explosibles*	EN 50281-1-1 : 1999 Zone 22, nichtleitfähiger Staub Zone 22 with non-conductive dust. Zone 22 avec poussières non conductrices.
89/336/EWG: Elektromagnetische Verträglichkeit *89/336/EEC: Electromagnetic compatibility* *89/336/CEE: Compatibilité électromagnétique*	EN 60529: 2000 EN 60947-3: 1999 + A1 EN 60947-5-1: 2000 EN 60309-1: 1999
Qualitätssicherung Produktion: *Production Quality Assessment:* *Assurance Qualitée Production:*	PTB 96 ATEX Q006-4

Kenn-Nr. der benannten Stelle / *Notified Body number / N° de l'organisme de certification:* 0102

Waldenburg, 09. Nov. 2006	i.V.	i.V.
Ort und Datum *Place and date* *lieu et date*	**B. Limbacher** **Leiter Entwicklung** *Head of Development* *Directeur Développement*	**Dr. S. Jung** **Leiter Qualitätsmanagement** *Director Quality Management Dept.* *Directeur Dept. Assurance de Qualité*

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